

# Honeywell Bull

## ALGOL ADDENDUM A

SERIES 600/6000

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SOFTWARE

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SUBJECT:

Series 600 Software Release 7.0 and Series 6000 Software Release E  
Additions to ALGOL, BS11, Revision 0.

SPECIAL INSTRUCTIONS:

This update, Order Number BS11A, is the first addendum to BS11, Revision 0, dated June 1972. The attached pages are to be inserted into the manual as indicated in the collating instructions on the back of this cover. Change bars in the page margins indicate technical additions and changes. These changes will be incorporated into the next revision of the manual.

NOTE: This cover should be placed following the manual cover to indicate the updating of the document with Addendum A.

SOFTWARE SUPPORTED:

Series 600 Software Release 7.0.  
Series 6000 Software Release E.

DATE:

October 1972

ORDER NUMBER:

BS11A, Rev. 0

## COLLATING INSTRUCTIONS

To update this manual, remove old pages and insert new pages as follows:

### Remove

D-15, D-16

### Insert

D-15, D-16

```

0010 'BEGIN'
0015 'INTEGER' N;
0020 'COMMENT'
0030     THIS IS THE OLD GAME OF THE TOWERS OF HANOI.
0040     A NUMBER OF DIFFERENT SIZED RINGS ARE
0050     TO BE MOVED FROM POLE 1 TO POLE 3 WITH
0060     ASSISTANCE FROM POLE 2. ONE RING AT A TIME
0070     IS MOVED AND A LARGER RING MAY NOT REST ON
0080     A SMALLER;
0090#
0100#
0110     'PROCEDURE' HANOI(N,P1,P2,P3);
0120     'INTEGER' N,P1,P2,P3;
0125     'BEGIN'
0130         'IF' N=0 'THEN' 'GOTO' EXIT;
0140         HANOI(N-1,P1,P3,P2);
0150         OUTPUT3(6,"/", "MOVE RING\,ZZD," FROM POLE\,ZD," TO POLE\,
0160         ZD\,N,P2,P2);
0170         HANOI(N-1,P3,P2,P1);
0180 EXIT:
0190     'END' OF PROCEDURE HANOI;
0200#
0210#
0220     INPUT1(5," ,N);
0230#
0240     HANOI(N,1,3,2);
0250#
0260 'END' OF ENTIRE PROGRAM

```

READY

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*SAVE ALGTEST (save program)
DATA SAVED--ALGTEST
*RUN (run program)
NO ERROR IN ABOVE COMPILATION
15098 WORDS WERE USED FOR THIS COMPILATION
=3 (type input data)
MOVE RING 1 FROM POLE 1 TO POLE 3
MOVE RING 2 FROM POLE 1 TO POLE 2
MOVE RING 1 FROM POLE 3 TO POLE 2
MOVE RING 3 FROM POLE 1 TO POLE 3
MOVE RING 1 FROM POLE 2 TO POLE 1
MOVE RING 2 FROM POLE 2 TO POLE 3
MOVE RING 1 FROM POLE 1 TO POLE 3
7275(10) WAS THE HIGHEST USED MEMORY LOCATION.

```

NORMAL TERMINATION

## REMOTE BATCH INTERFACE

Refer to the GRTS Programming Reference Manual, for a description of the deck setup required for submitting a batch job from a remote terminal.

## FILE SYSTEM INTERFACE

The File System provides multiprocessor access to a common data base. The file system allocates permanent file space and controls file access for users in local and remote batch and time-sharing. The file system is fully described in the manual File System.

## TERMINAL/BATCH INTERFACE

The CARDIN time-sharing subsystem allows the user to submit a batch job from a time-sharing terminal. This capability is fully described in the manual Time-Sharing System Terminal/Batch Interface Facility.

## FILE FORMATS

The compiler will accept either ASCII or BCD source input. ASCII source input must be in the TSS format and is assumed to have line numbers. An ASCII input line of only numbers (or only numbers followed by a pound sign) will be ignored. In order to insert blank lines into the program, the line number must be followed by at least one blank.

The subroutine library input routines will accept either ASCII or BCD input. ASCII input may be either in the TSS format (media code 5) or in "standard ASCII" format (media code 6). If an input file is in TSS format, it is assumed to have line numbers. The line numbers will be removed by the input routines.

The subroutine library will write either ASCII or BCD output files. ASCII output files will be in the "standard ASCII" format (media code 6). Each output line will have one line feed appended to the end of the record. The last word of a line will be filled with "rub-out" characters. The alignment mark for restoring the page ( ) will generate a record of 16 consecutive line feeds.

In the batch mode of operation, file codes 5 and 6 are assumed to be in BCD format. File code 5 is for the card reader (I\*) and file code 6 is for the printer (P\*). If I/O is to be performed on a file which is (or will be) in ASCII format, a statement SYSPARAM (FC, 24, 4) must precede the first reference to that file.

In the time-sharing mode of operation, file codes 5 and 6 are assumed to reference the teletype (i.e., in ASCII format). Since the destination code (DSTCOD) capability is not available in time-sharing, if I/O is to be performed on a file other than 5 or 6, a call to SYSPARAM with the appropriate parameters must precede the first reference to that file.